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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/912,561 | 07/26/2001 | Toshiharu Katsuki | Q65527 | 5480 |

7590 07/13/2004
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Washington, DC 20037-3213

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| EXAMINER |
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JUSKA, CHERYL ANN

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| ART UNIT | PAPER NUMBER |
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1771

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/912,561 | Applicant(s) KATSUKI ET AL. | |
| | Examiner Cheryl Juska | Art Unit 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,7 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6,7 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Response to Amendment

2. Applicant's amendment filed May 20, 2004, has been entered. Claims 1-5 and 8-18 are cancelled, while claims 6 and 7 have been amended as requested. New claims 21-24 have been added. Thus, the pending claims are 6, 7, and 19-24.

3. Said amendment is sufficient to withdraw the 112, 2nd rejection of claims 6 and 7 as set forth in sections 4 and 5 of the last Office Action. The cancellation of claim 17 renders moot the 112, 1st rejection set forth in section 7 of the last Office Action.

4. The Advisory Action of May 4, 2004, noted that applicant's arguments were sufficient to overcome the anticipation rejection by Nakao (US 5,683,784). However, the examiner believes the 102 rejection should be maintained, as set forth below, due to further review of the Nakao reference and the present claims.

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Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Said claims limit the non-synthetic fiber to being a natural fiber or a regenerated fiber. Since, in the textile art, there are only two broad classes of fibers—natural and synthetic fibers, the term “non-synthetic” is equivalent to “natural.” Hence, if one accepts the common terminology in the art, claims 21 and 22 are not further limiting. Thus, the claims are indefinite because it is unclear what applicant intends to encompass. Additionally, in the textile art, regenerated fibers, although *made from* natural materials, are *synthetic* fibers. Thus, claims 23 and 24 are also indefinite because it is unclear how a regenerated fiber can be non-synthetic.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 6, 19, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,683,784 issued to Nakao et al.

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Applicant claims a method comprising applying a solution containing an ink holding agent of high wettability to a synthetic fiber onto one side of a fabric including said synthetic fiber and then applying an ink holding agent of low wettability to said synthetic fiber onto the other side of said fabric. The ink holding agent of high wettability comprises a synthetic polymer, while the agent of low wettability comprises a semi-synthetic polymer or a natural polymer. According to the specification, page 12, sections [0191] and [0192], suitable agents of high wettability include those having hydroxyl, amide, and carbonyl functional groups, such as polyvinyl alcohol, acrylic resins, and polyurethane resins. The agents of low wettability preferably have amylose and cellulose molecular chains, such as starch, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, and carboxymethyl cellulose (specification, page 13, section [0195] and [0196]).

Nakao teaches an inkjet recording medium comprising a fabric made of natural or synthetic fibers, such as cotton, wool, polyester, acrylic, nylon, or rayon fibers (abstract and col. 1, lines 27-33). To make said ink jet recording medium, first a liquid containing silica powder and a binder is coated onto one side of a fabric and then a liquid containing boehmite and a binder is coated onto the other side of said fabric (col. 1, line 54-col. 2, line 67 and working examples). The binder for the first coating may be polyvinyl alcohol, ethylene-vinyl acetate, an acrylic resin, or a urethane resin (col. 2, lines 4-6), while the binder for the second coating may be starch, carboxymethyl cellulose, hydroxymethyl cellulose (col. 2, lines 40-47).

Thus, Nakao anticipates applicant's claim to coating a solution of a synthetic polymer onto one side of a synthetic fiber fabric and then a solution of a semi-synthetic or natural polymer onto the other side of said fabric. Nakao does not explicitly teach the claimed

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wettabilities. However, since the properties of low and high wettability to a synthetic fiber are inherent to the polymer employed and since Nakao teaches the same polymers disclosed by applicant, it is asserted that Nakao inherently anticipates applicant's limitations to wettability properties. Therefore, claims 6, 19, 21, and 23 are rejected.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 7, 20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Nakao patent in view of JP 09-279486 issued to Maeda et al.

Nakao fails to teach an inkjet substrate that is a napped fabric. However, said napped fabrics are known in the art. For example, Maeda teaches coating a pile fabric to prepare it for inkjet printing (abstract and translation section [0002]). Thus, it would have been obvious to one skilled in the art to substitute a napped fabric for the fabrics of Nakao in order to produce an aesthetically pleasing fabric which can be inkjet printed onto. Therefore, claims 7, 20, 22, and 24 are rejected.

Response to Arguments

11. Applicant's arguments filed with the RCE amendment have been fully considered but they are not persuasive.

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Applicant traverses on the ground that the present invention is different from the cited prior art with respect to the order of the coating steps (RCE Amendment, page 4, 4th paragraph). In response, it is reiterated that the properties of low and high wettability to a synthetic fiber are inherent to the polymer employed and since Nakao teaches the same polymers disclosed by applicant, it is asserted that Nakao inherently anticipates applicant's limitations to wettability properties. Therefore, applicant's argument is unpersuasive.

Conclusion

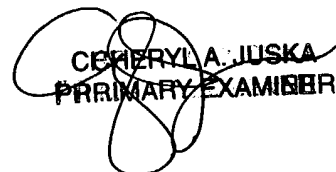
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cj

July 12, 2004



CHERYL A. JUSKA
PRIMARY EXAMINER